

A BRIEF STORY ABOUT

# CIRCULAR DESIGN

IN PRACTICE

SEBASTIAN GANN – GROUP SUSTAINABILITY DIRECTOR

**ZUMTOBEL** Group

# COMPANY

ZUMTOBEL Group

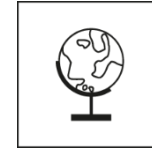
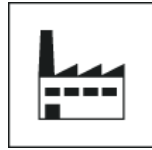
**WE LIVE LIGHT**



THE ZUMTOBEL GROUP

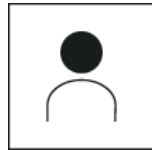
# AT A GLANCE

**10**  
Plants on three continents



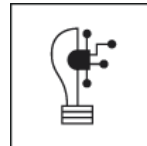
**90**  
Sales offices and partners in 90 countries

**5.782**  
Employees worldwide



**>70**  
Years of experience and lighting competence

**4.875**



Registered patents show the innovative strength of the Zumtobel Group

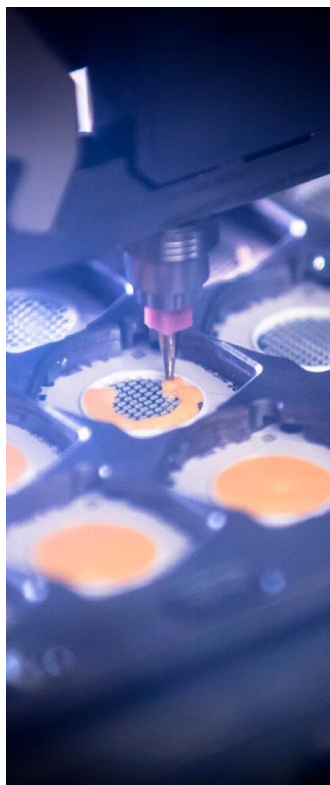


All figures are based on the consolidated financial statements financial year 2021/22 (1 May 2021 – 30 April 2022)

FROM COMPONENT TO CONNECTED LIGHTING SOLUTION

# VALUE CHAIN

LED MODULES



LED DRIVERS



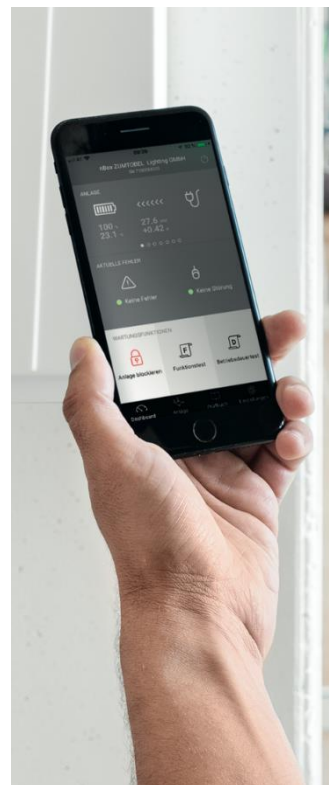
SENSORS, CONTROLS,  
HARDWARE AND SOFTWARE



LUMINAIRES



LIGHT MANAGEMENT  
(USER INTERFACE & APPS)



LIGHTING SOLUTIONS



SERVICES & SOLUTIONS



STRONG BRANDS UNDER ONE ROOF

# SELECTED MARKET SEGMENTS AND BRAND ALLOCATION

INDOOR



INDUSTRY



OFFICE & EDUCATION



RETAIL AND ART & CULTURE



HEALTH & CARE

THORN

ZUMTOBEL

OUTDOOR



URBAN AREAS



ROADS,  
TRANSPORTATION & TUNNEL



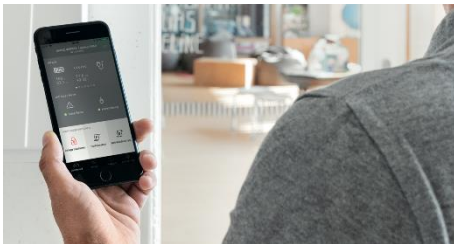
ARCHITECTURE



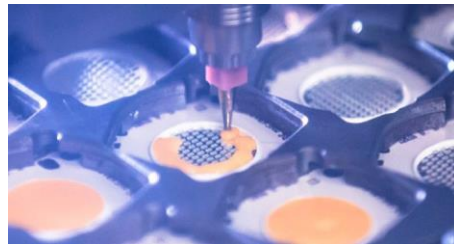
SPORTS & ARENA

THORN

COMPONENTS



SMART LIGHTING CONTROL



LED MODULES, DRIVERS

TRIDONIC

SUSTAINABILITY  
**Drivers**

**The 1.5°C Target**

The EU Green Deal drives sustainability through disclosure requirements. From financial markets to industry.



**Building and Construction Industry**

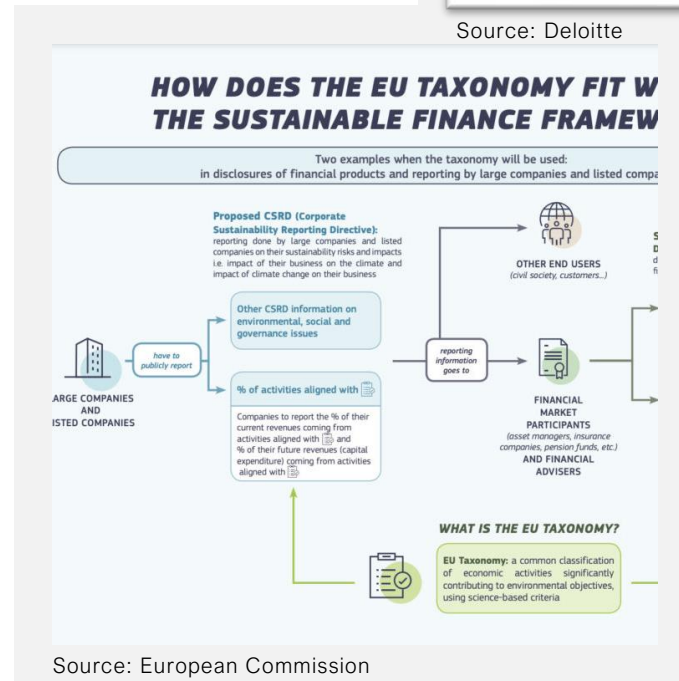
EU Green-Deal-induced environmental and social criteria have an impact on access to capital and asset value.



**A Need for Sustainable Solutions**

For a future worth living in, there is an urgent need for action. New legal frameworks are aiming at directing investments in sustainable economic activities, calling for sustainable solutions.

Source: Deloitte



Source: European Commission

**Customers**

Building contractors and planners need suppliers who help them achieve their targets in sustainability.

# CIRCULAR ECONOMY





<https://www.wasserfaelle-krimml.at/>

### Linear economy

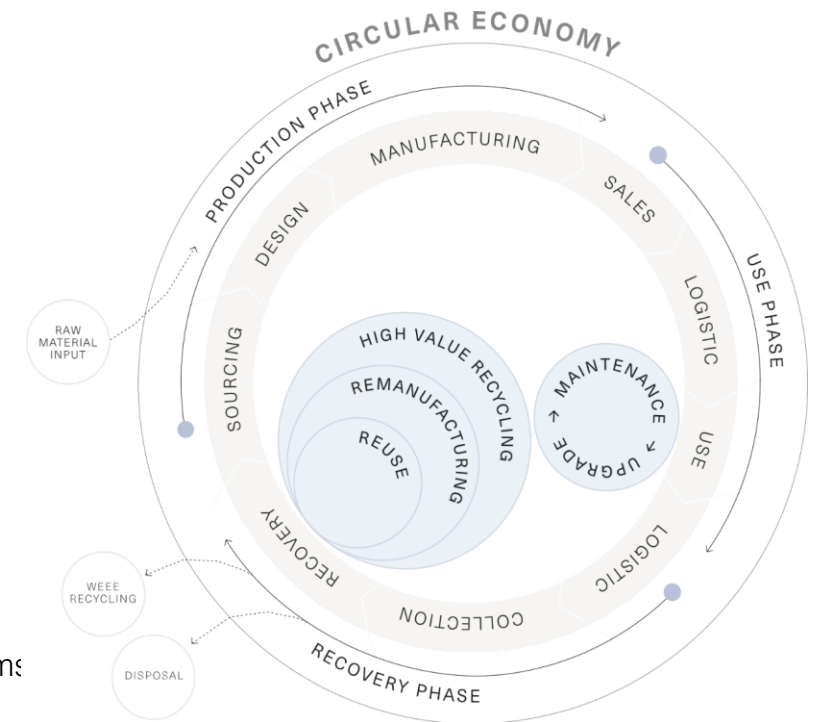
CO<sub>2</sub>, waste and resource problem - increasingly addressed by politics and customers

# CIRCULAR ECONOMY

## From linear to circular

### Circular Economy Approach

In the transition from linear to circular, we explore ecosystems required to realize maintenance and upgrade, reuse and remanufacturing, as well as high-value recycling.



### Circular Economy

- Value retention strategies
- maintenance and upgrade
  - reuse and remanufacturing
  - high-value recycling

# Circular Systems



## Maintenance and Upgrade

Renovation trend and ban of fluorescent lamps as opportunities.

Refurbishment Kits for upgrading existing luminaires.

High light quality, less energy consumption.

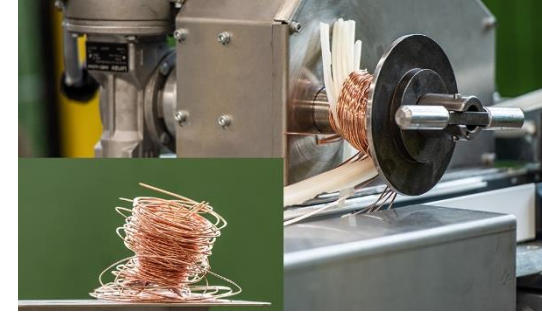


## Reuse and Remanufacturing

Reuse products or use used parts to produce new products.

Project context and product architecture matter.

New processes.



## High-Value Recycling

High-Value Recycling aims at making use of materials from used products in their existing quality.

Circulation of materials with a well-known identity.

Supply suppliers.



lum**DATA**

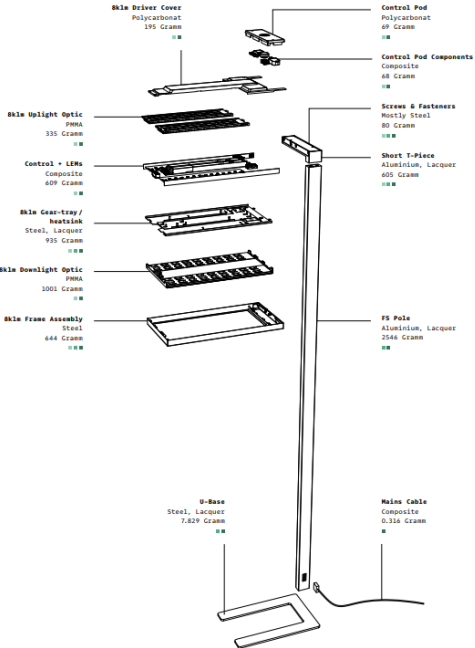


CDRs

Circular Sourcing

Circular Design

Circular Systems



CIRCULAR ECONOMY

# Circular Design Rules (CDRs)

Products for the Circular Economy

In developing products suitable for the circular economy, circular sourcing, circular design and circular systems are considered. The Circular Design Rules (CDR) are an integral part of our product development process.



CIRCULAR DESIGN RULES (CDRs)

# CIRCULAR SOURCING

CDRs



CIRCULAR  
SOURCING



CIRCULAR  
DESIGN



CIRCULAR  
SYSTEMS



Egg from free-range chicken or  
laying battery?

## Circular Sourcing

- ↑ recycled materials
- ↑ materials for recycling
- ↓ substances counteracting circularity & health

→ “Waste is material without identity”

# CIRCULAR DESIGN

## CDRs



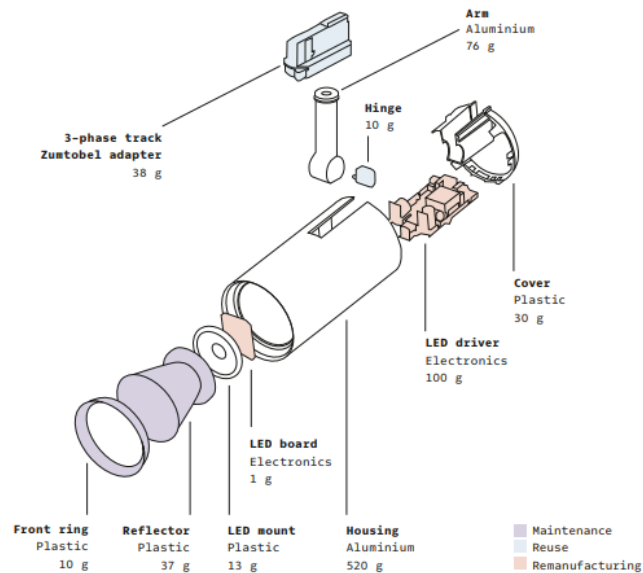
CIRCULAR SOURCING



CIRCULAR DESIGN



CIRCULAR SYSTEMS

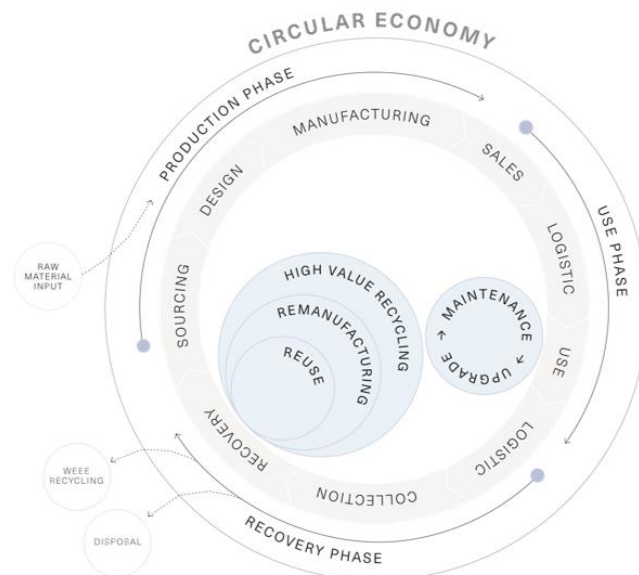
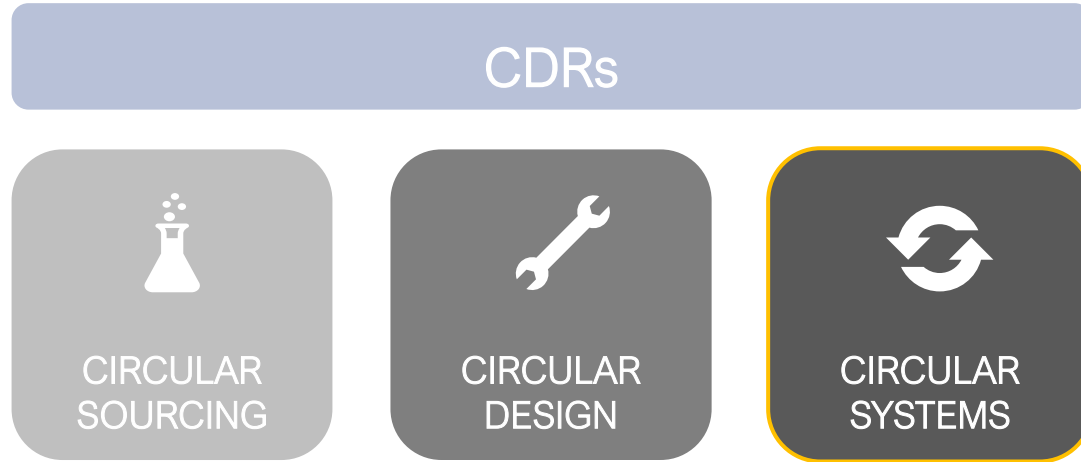


## Circular Design

- Design for disassembly
- Facilitate a long product lifetime
- Foundation for maintenance and upgrade

## CIRCULAR DESIGN RULES (CDRS)

# CIRCULAR SYSTEMS



## Circular Systems

- Take-back systems
- Reverse Logistics for reuse, remanufacturing and high-value recycling
- Process cost vs. benefit from recovery



# LIGHT TALKS

THE PODCAST OF THE **ZUMTOBEL** Group

**ZUMTOBEL** Group

CIRCULAR ECONOMY

## Partner

The Circular Economy requires collaboration

We engage with network partners to identify the necessary process steps required for making use of the opportunities in the circular economy. #togethercircular



# CONCLUSION



**ZUMTOBEL** Group

**THANK YOU**